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Figure 1

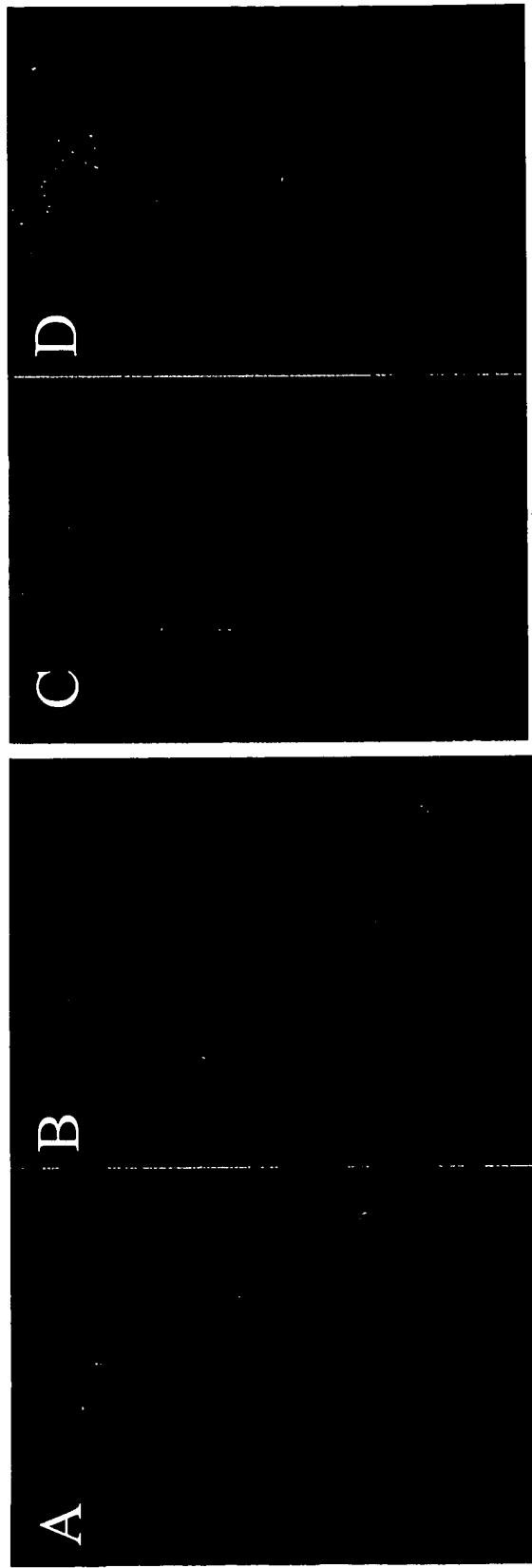


Figure 2

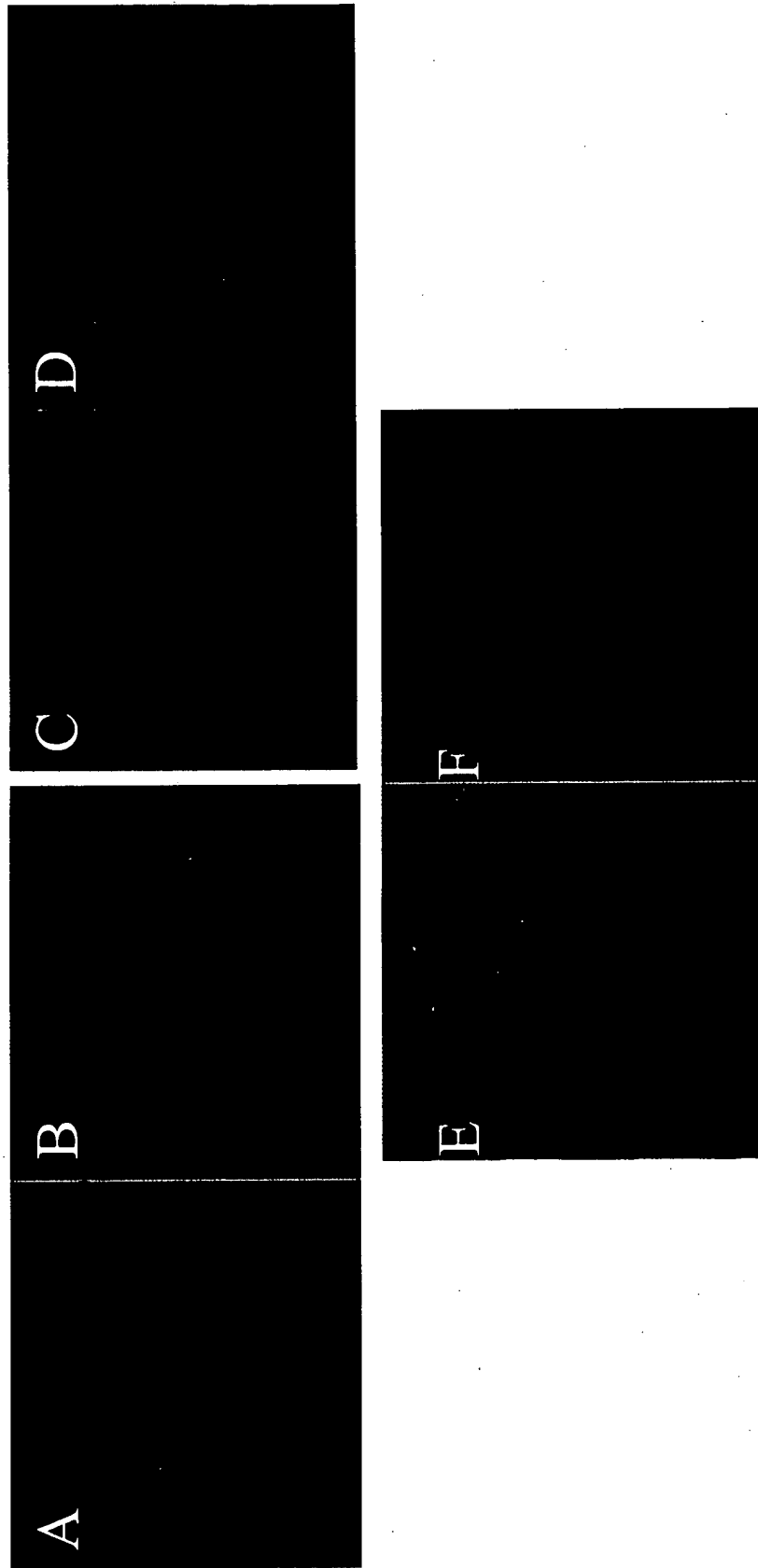


Figure 3

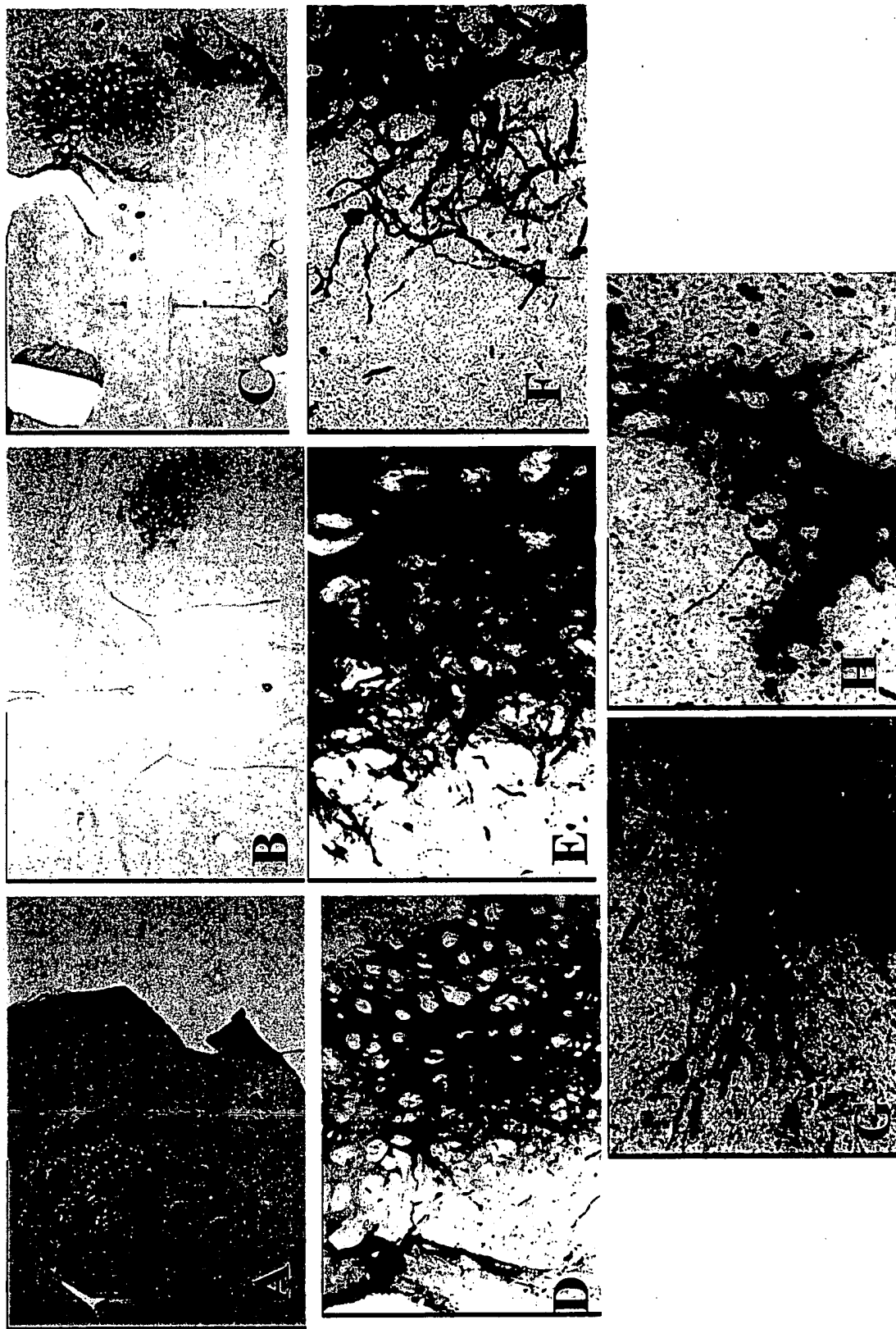


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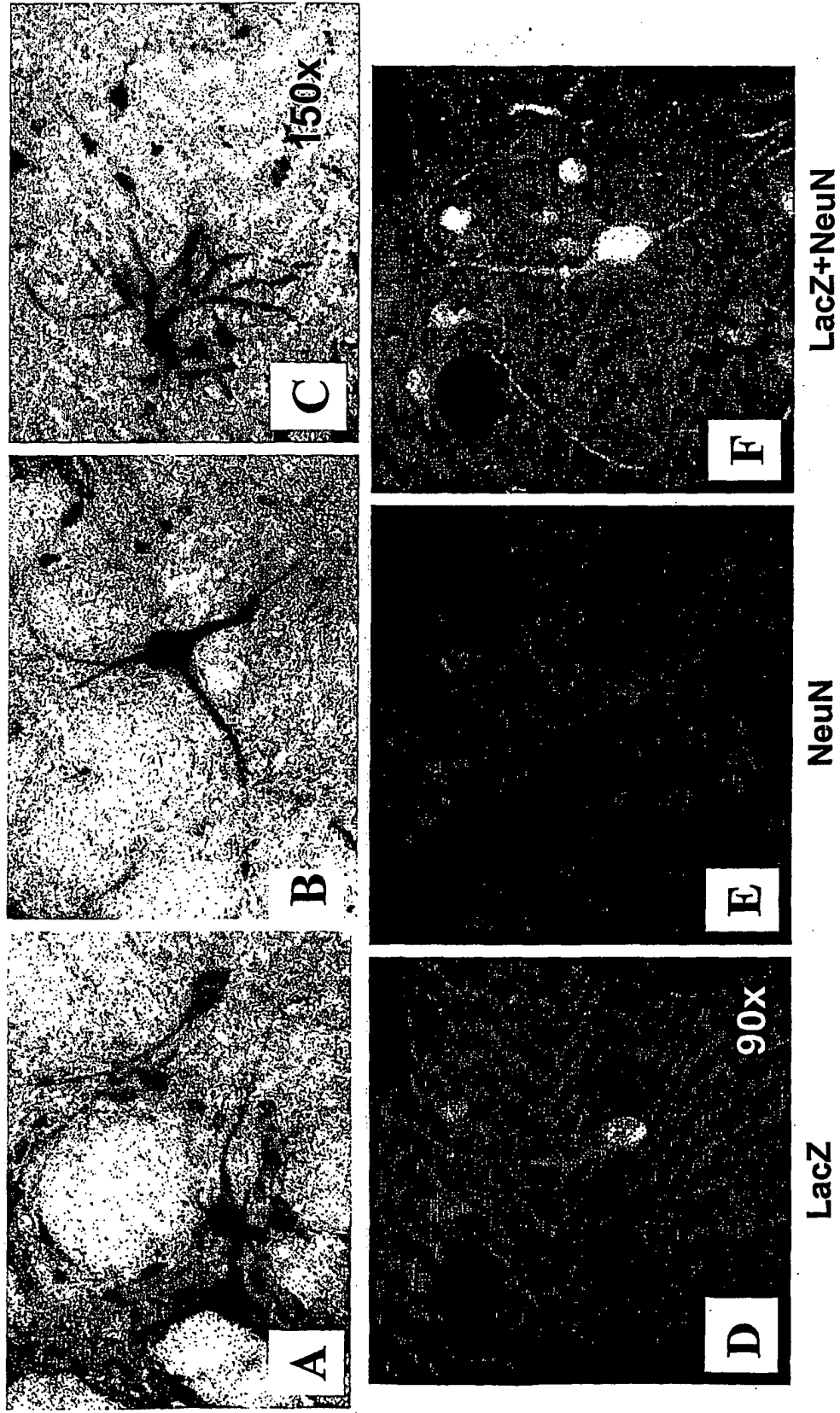


Figure 5



Figure 6

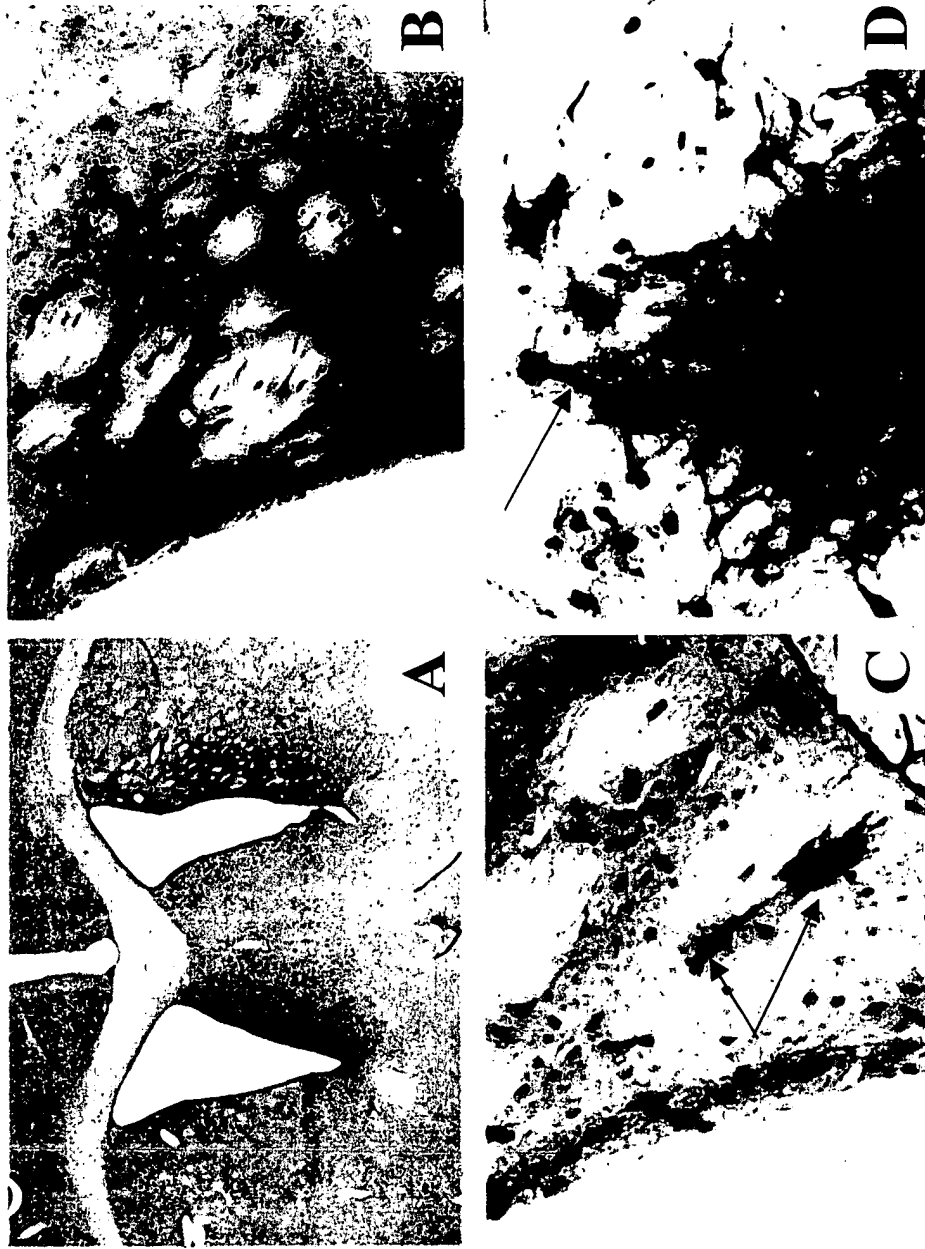
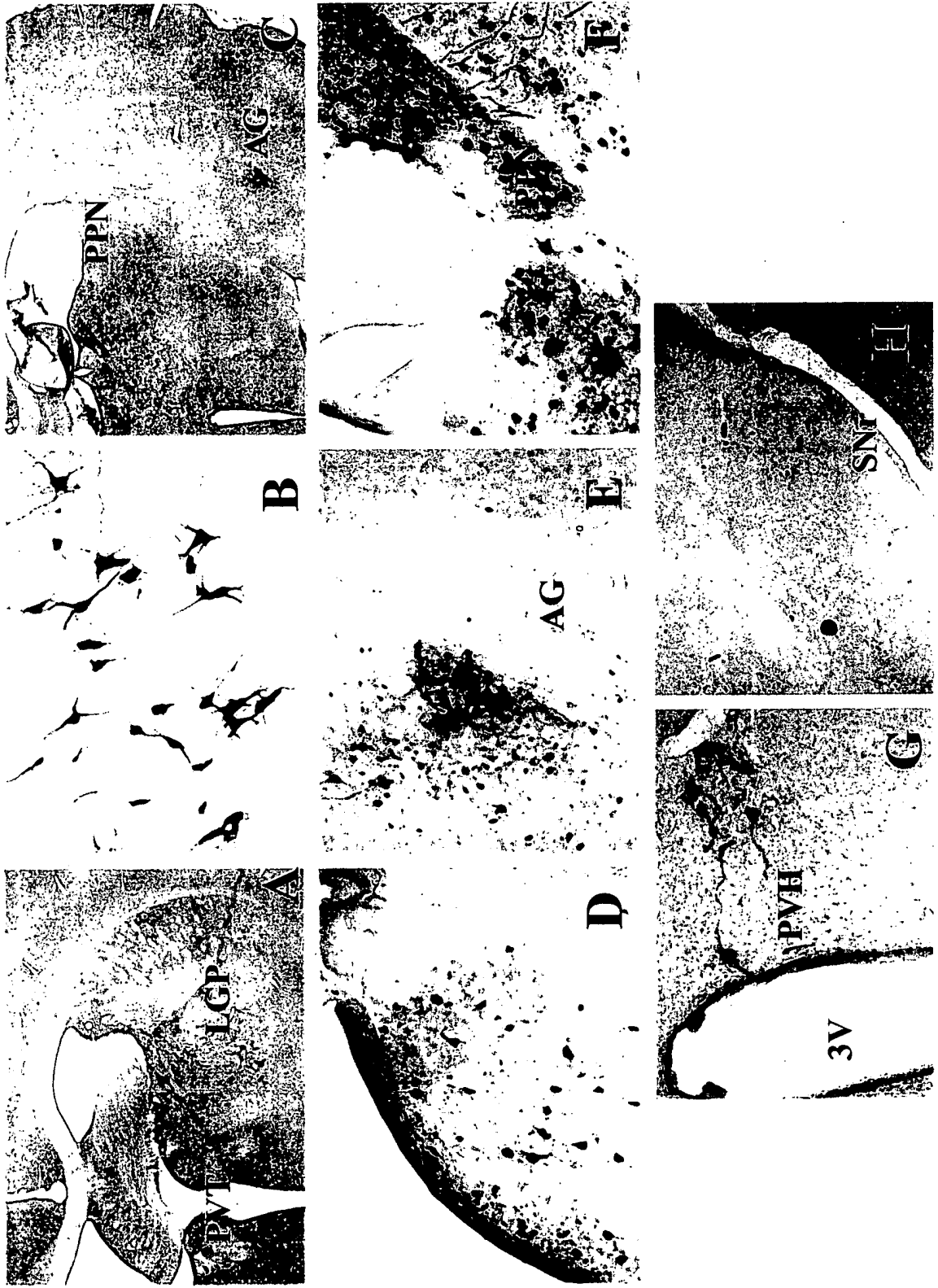


Figure 7



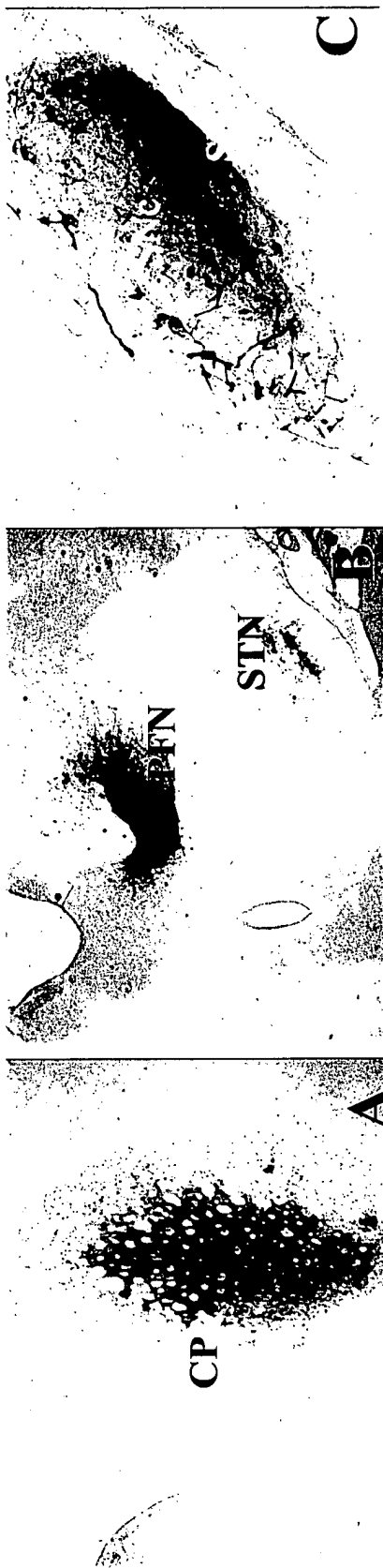


Figure 8

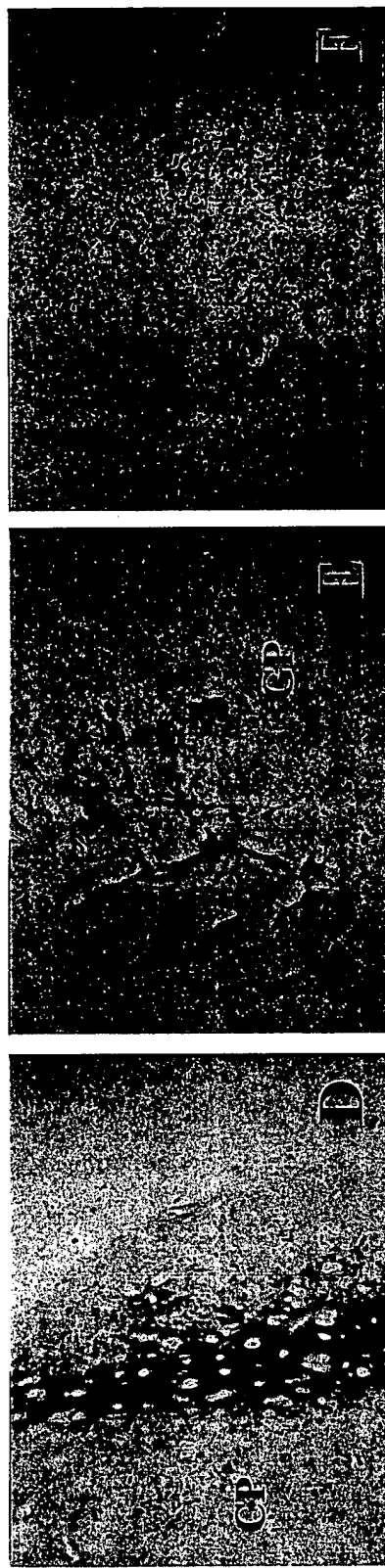


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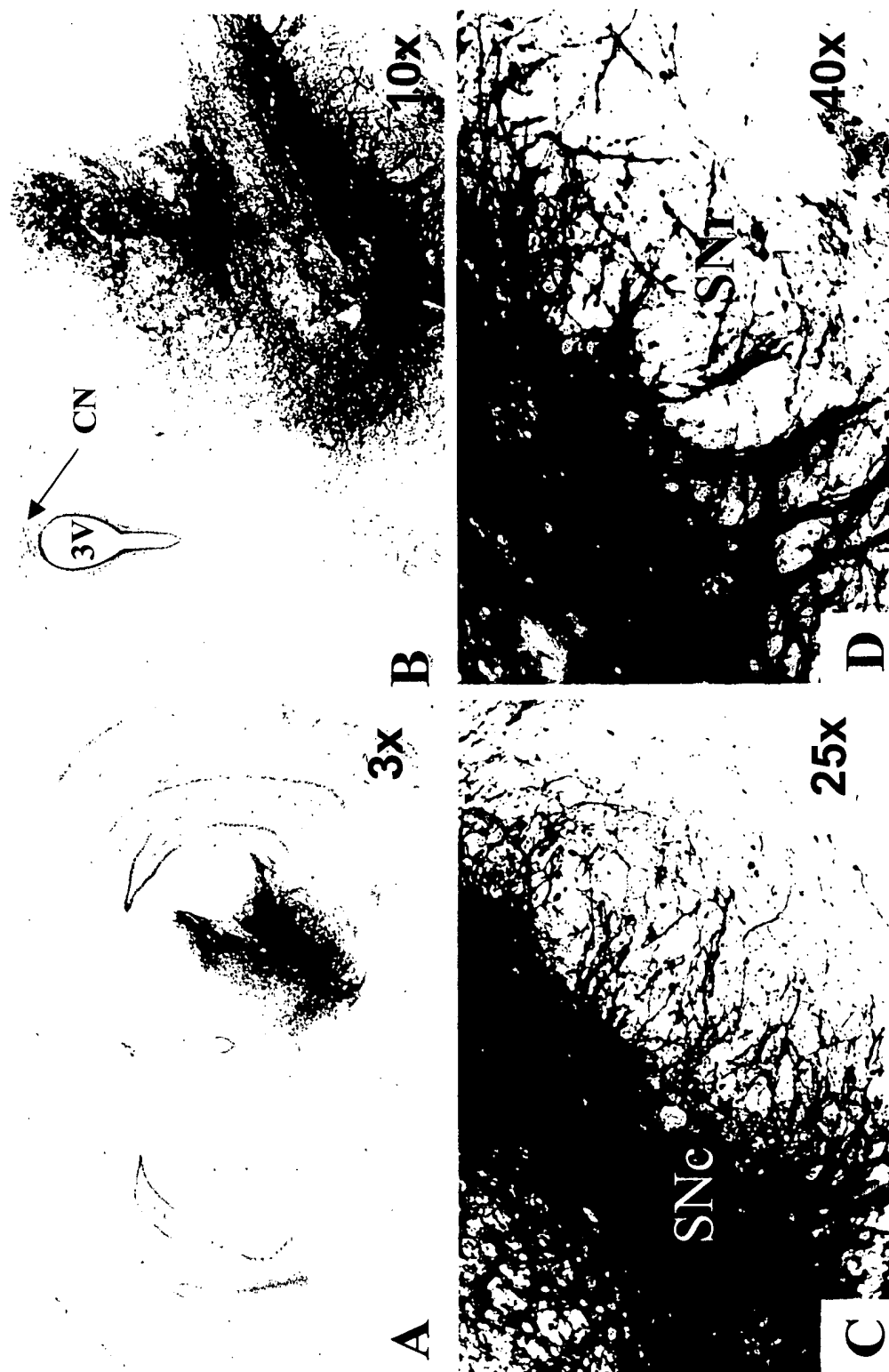


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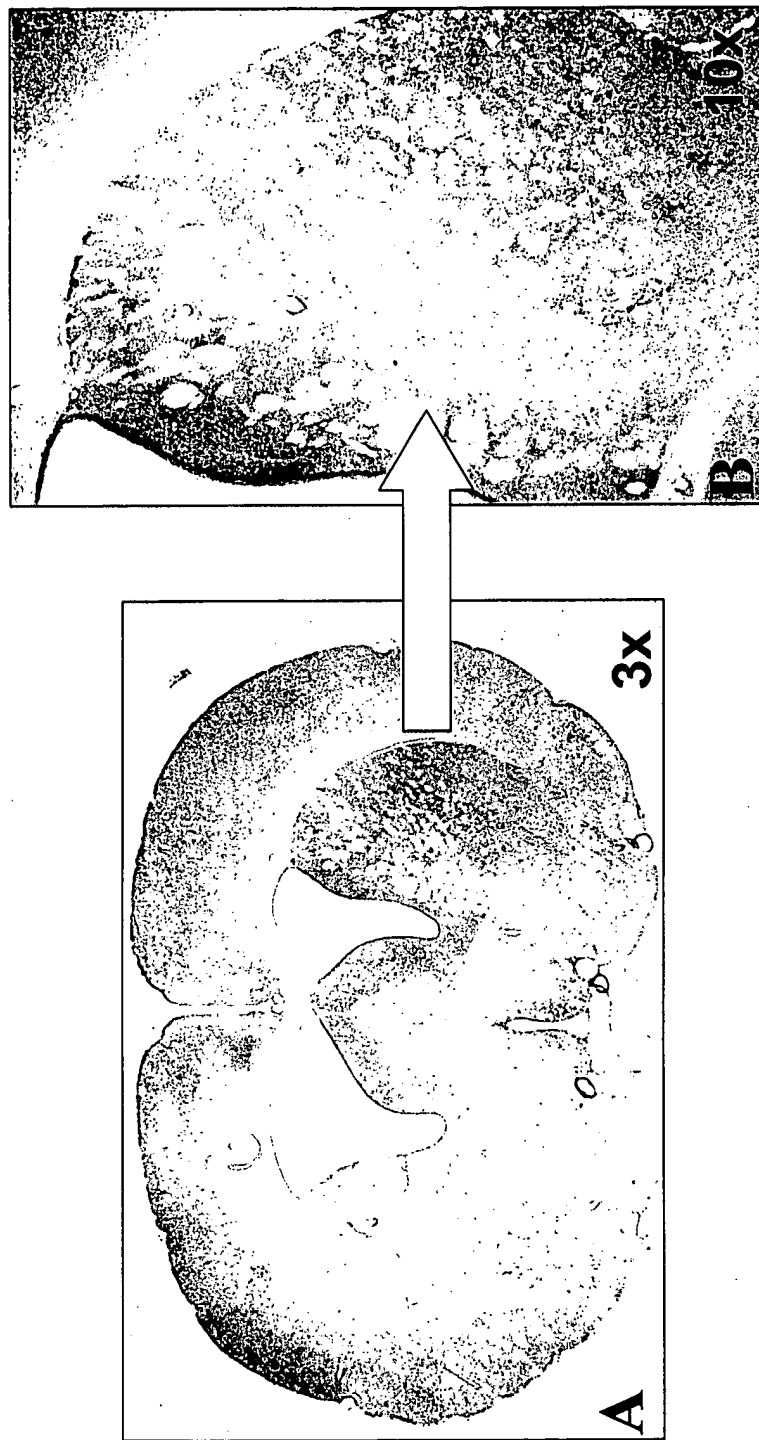


Figure 11

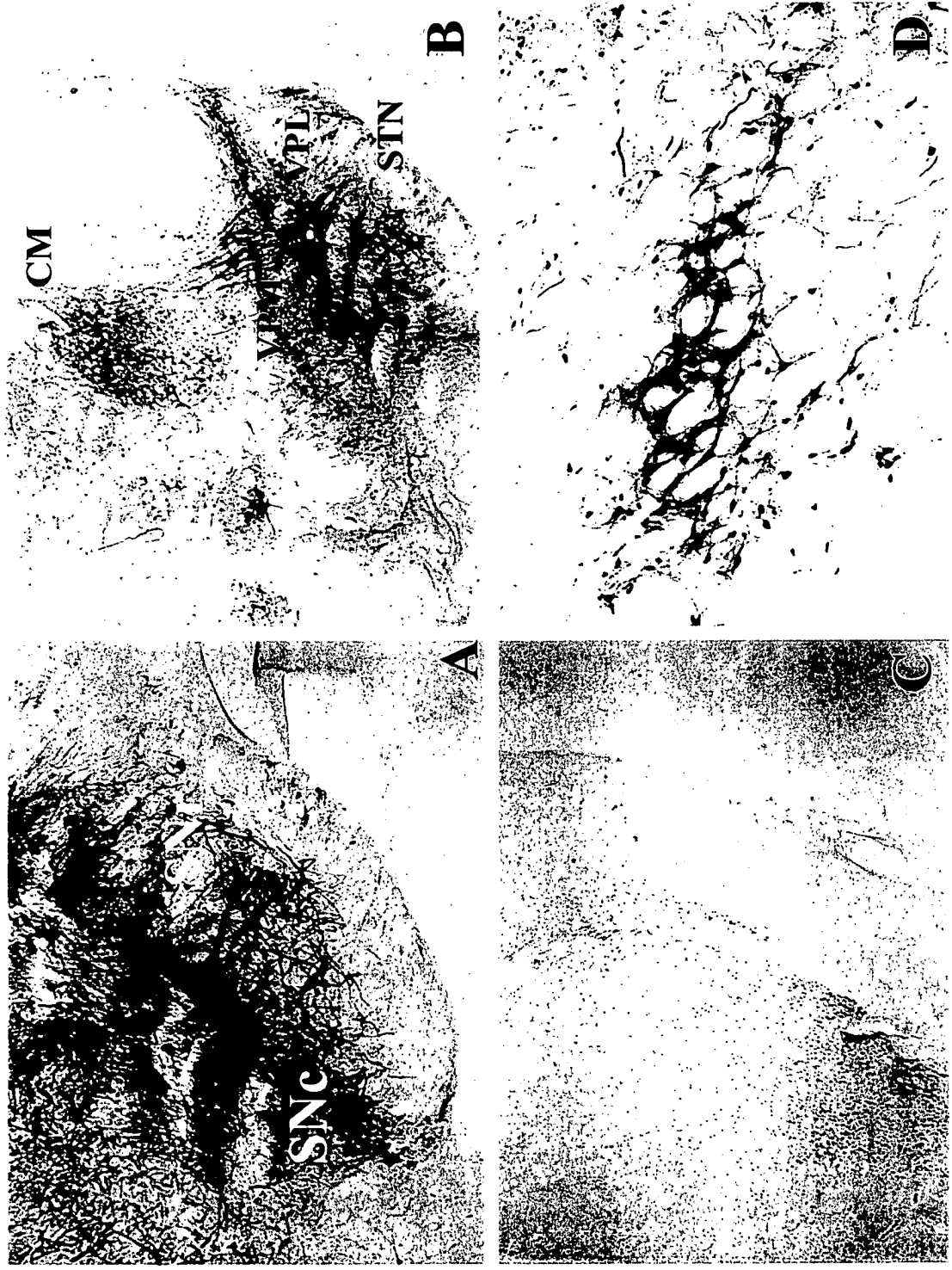


Figure 12

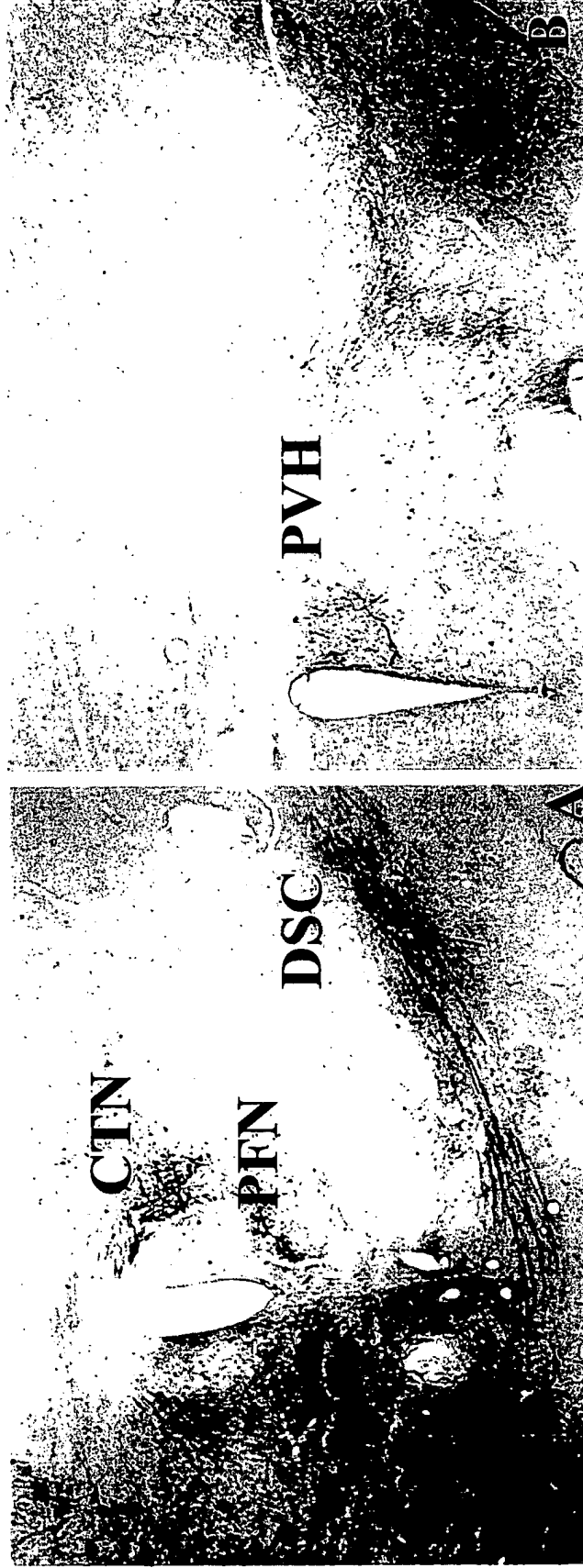




Figure 13

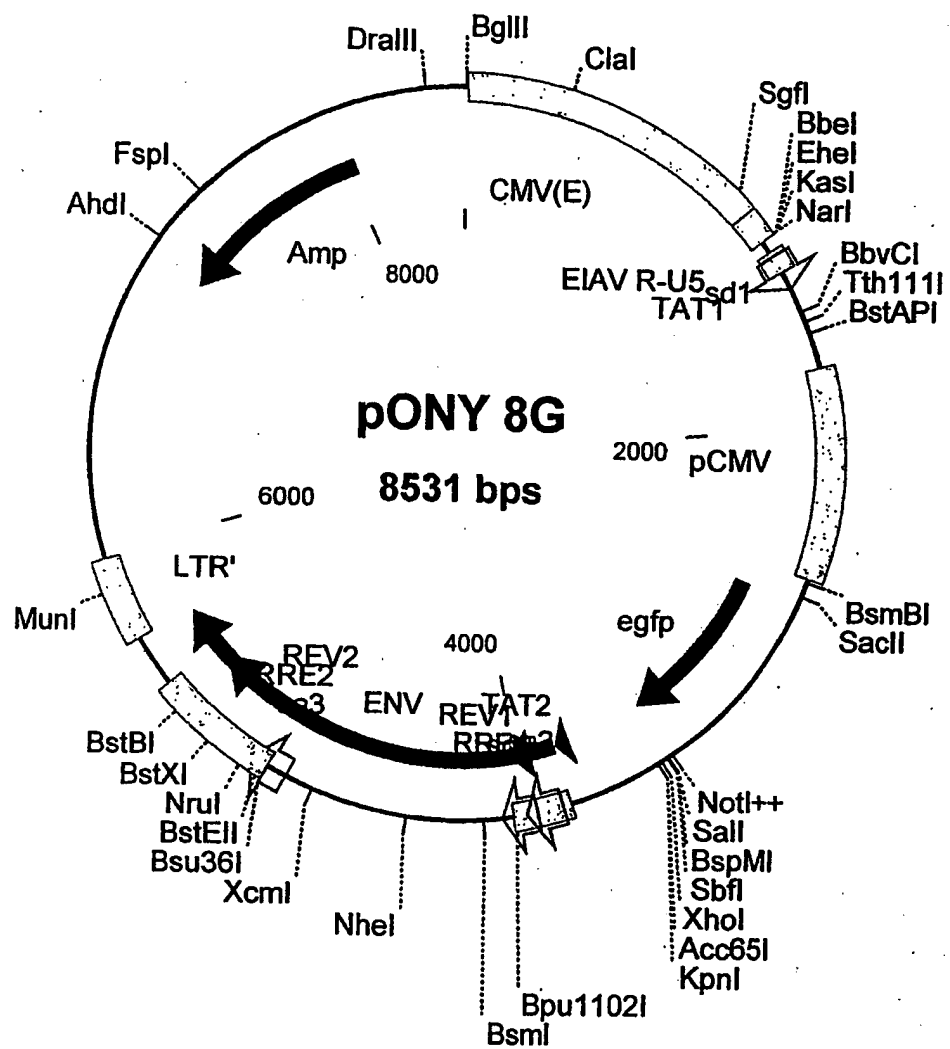
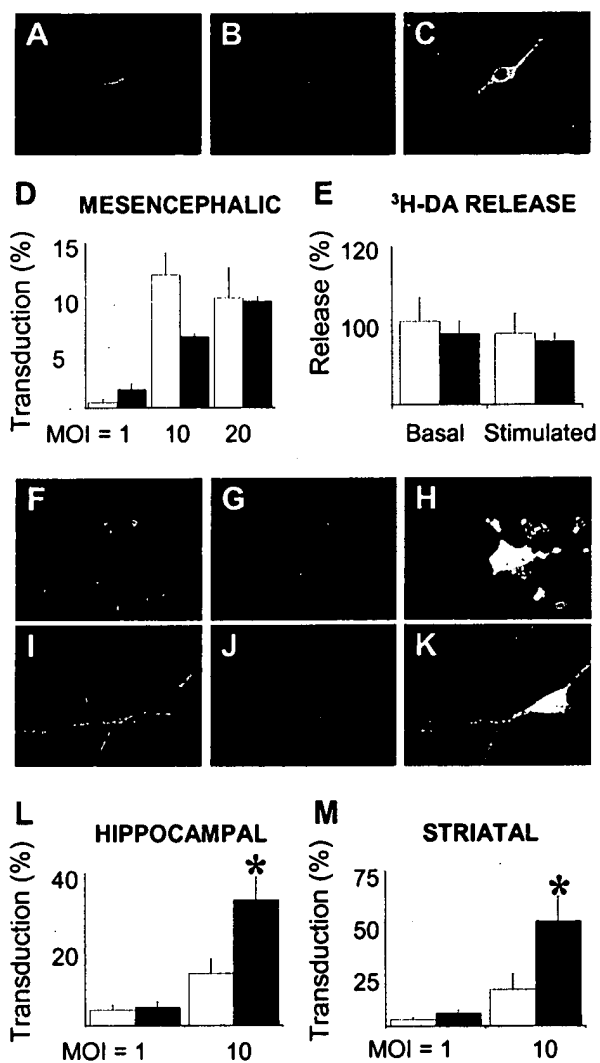


Figure 14

Figure 15



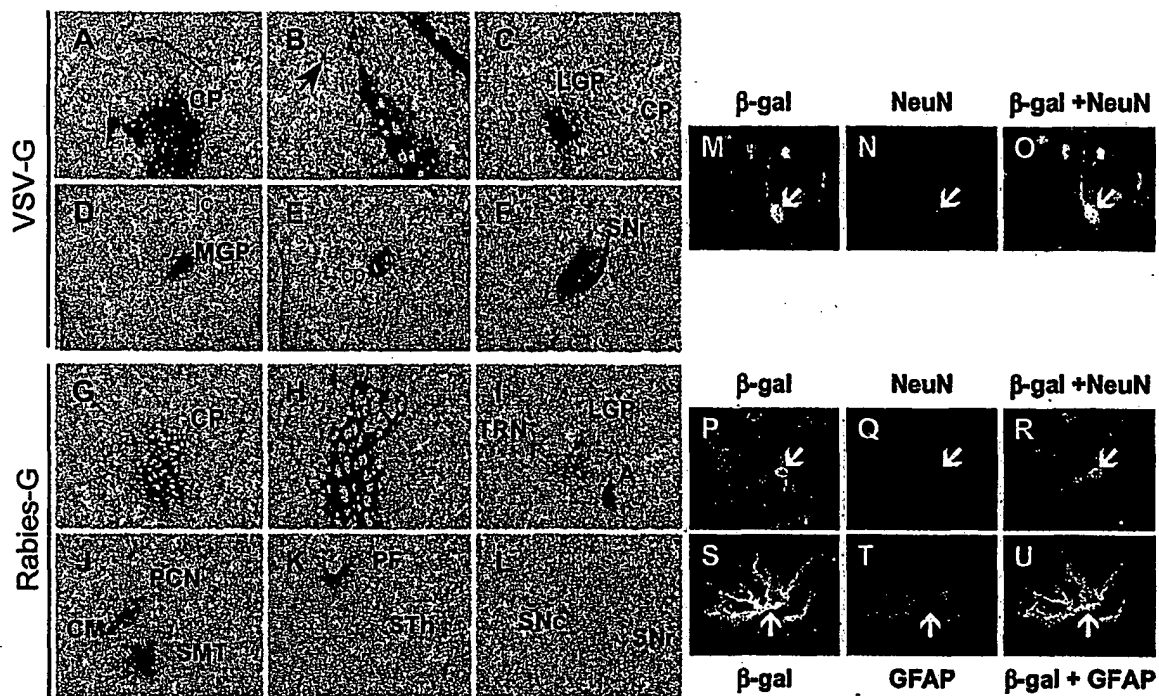


Figure 16

Figure 17

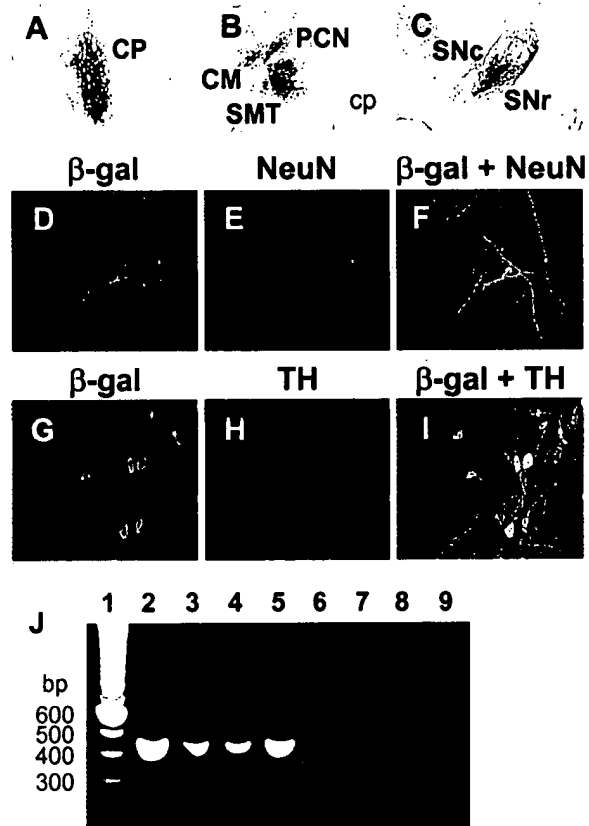


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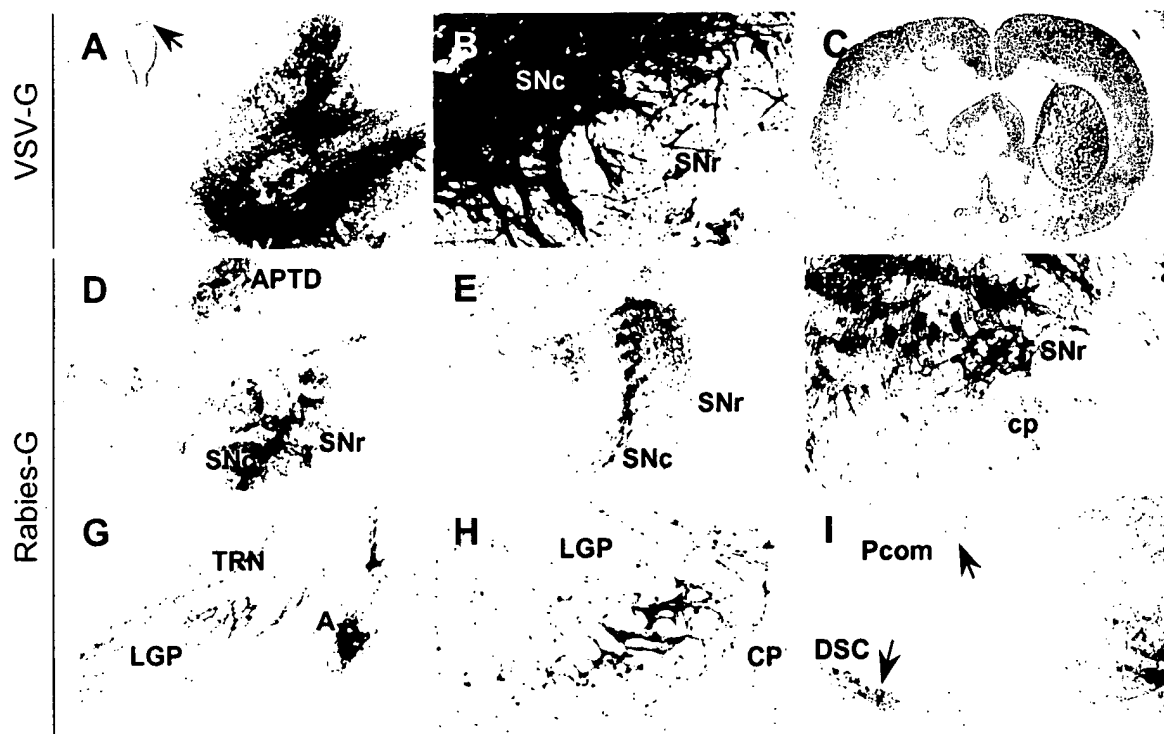


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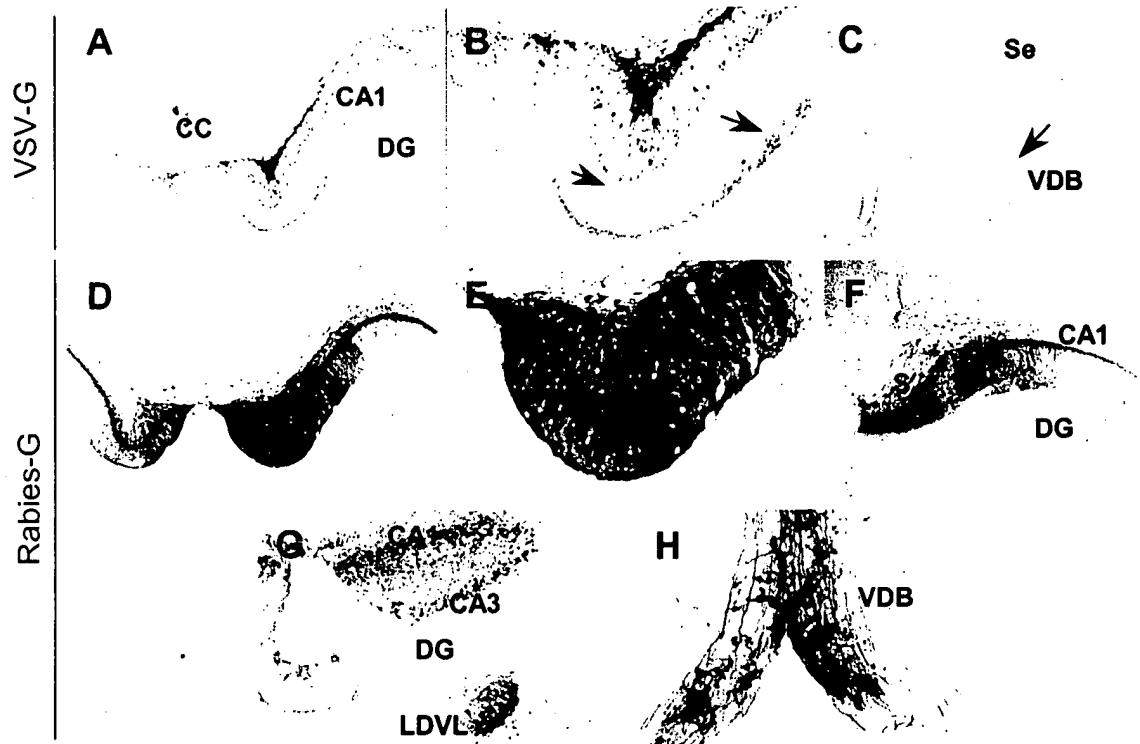


Figure 20

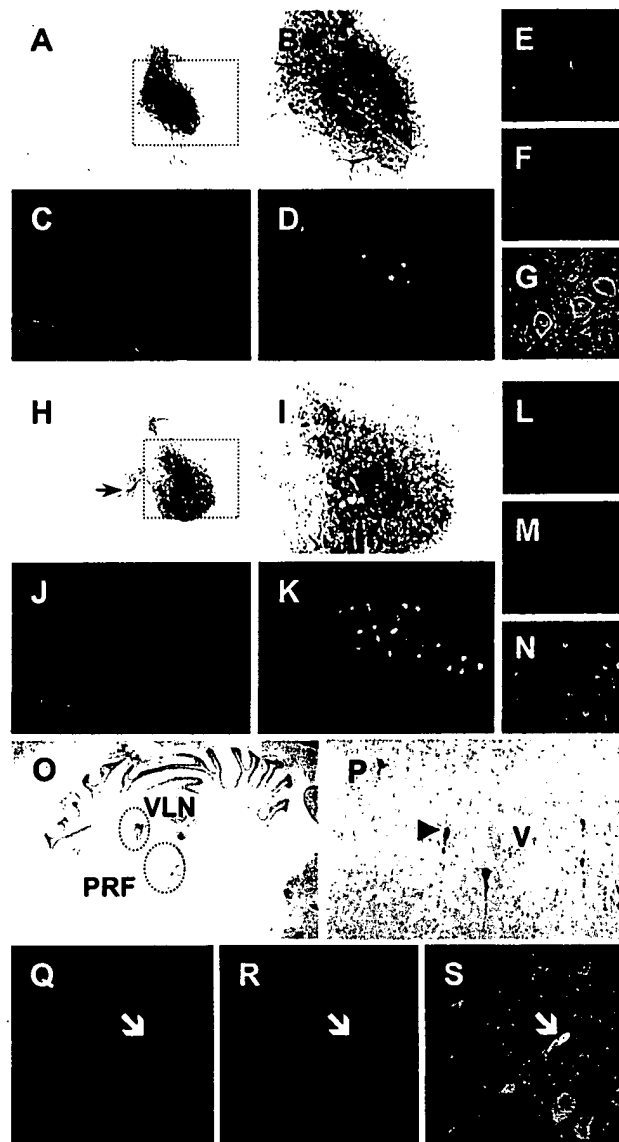


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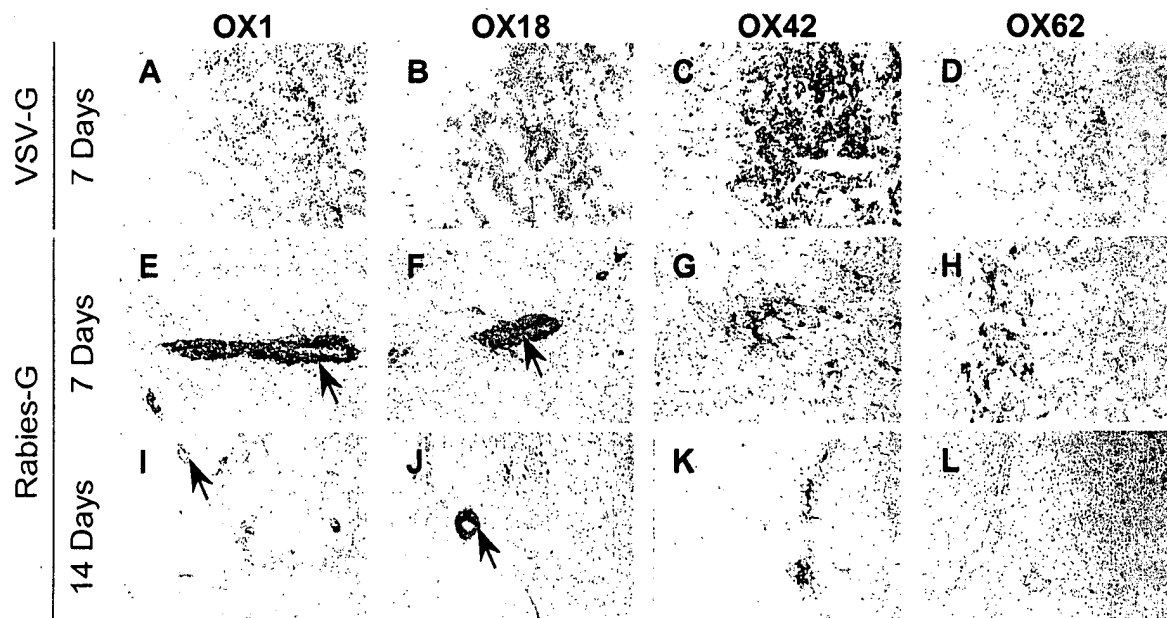


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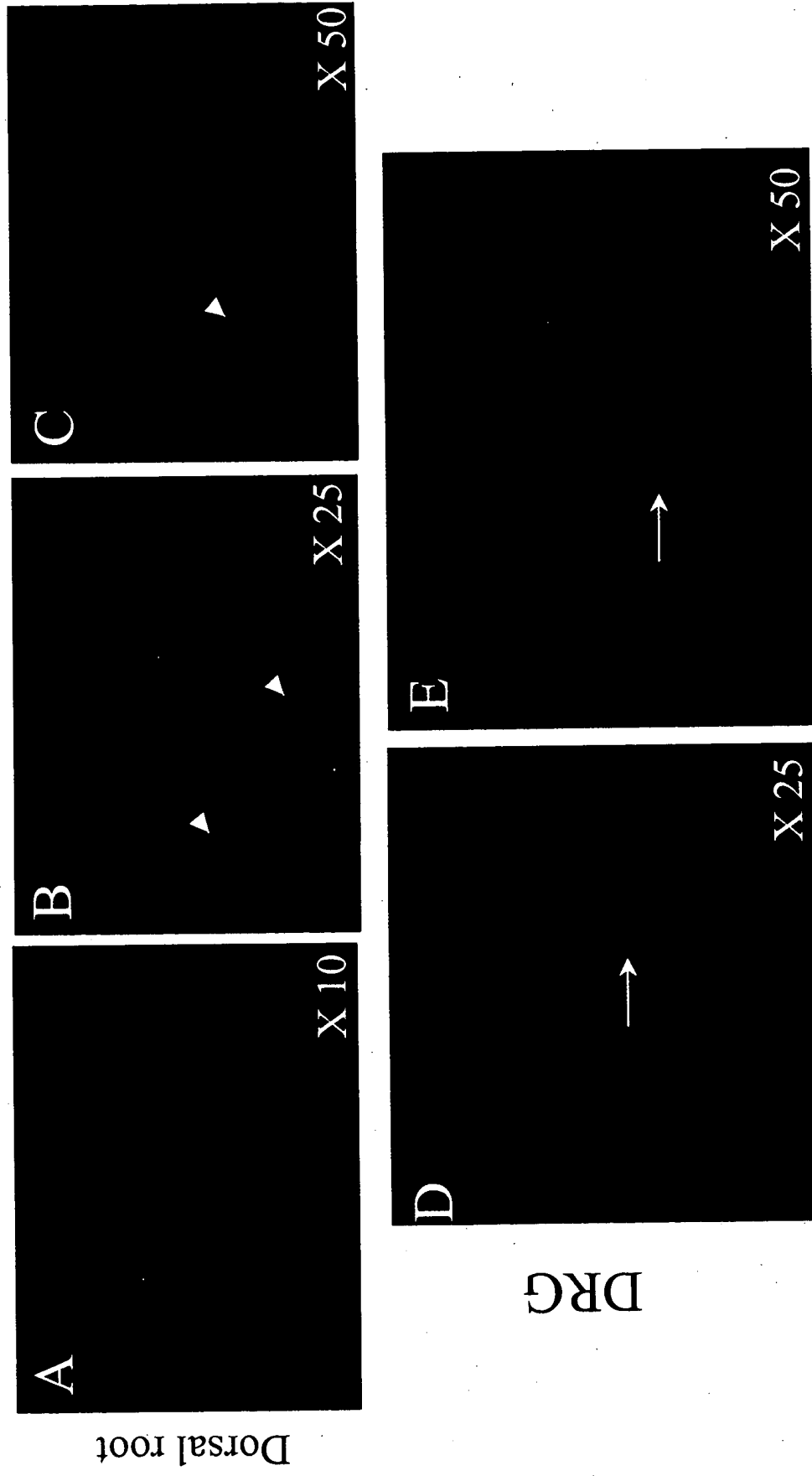


Figure 23

SEQ ID NO:12

NUCLEOTIDE SEQUENCE OF RABIES VIRUS STRAIN ERA

Genbank: locus RAVGPLS, accession M38452

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1  aggaaagatg gttcctcagg ctctcctggt tgtaccctt ctggtttttc cattgtgttt
61  tgggaaattc cctatttaca cgatactaga caagcttggt ccctggagcc cgattgacat
121 acatcacctc agctgcccaa acaatttggt agtggaggac gaaggatgca ccaacctgtc
181 agggttctcc tacatggaac ttaaagttgg atacatctta gccataaaaa tgaacggggt
241 cacttgcaca ggcgttgtag cggaggctga aacctacact aacttcgttg gttatgtcac
301 aaccacgttc aaaagaaagc atttcgccc aacaccagat gcatgtagag ccgcgtacaa
361 ctggaagatg gccggtgacc ccagatatga agagtctcta cacaatccgt accctgacta
421 ccgttggttc cgaactgtaa aaaccaccaa ggagtctctc gttatcatat ctccaagtgt
481 agcagatttg gacctatatg acagatccct tactcgagg gtcttccta gcggaagtg
541 ctcaggagta gcggtgtctt ctacctactg ctccactaac cacgattaca ccatttggat
601 gcccgagaat ccgagactag ggatgtcttg tgacattttt accaatagta gagggagag
661 agcatccaaa gggagtgaga cttgcggctt ttagatgaa agaggcctat ataagcttt
721 aaaaggagca tgcaaaactc agttatgtgg agttctagga cttagactta tggatggaac
781 atgggtcgcg atgcaaacat caaatgaaac caaatggtgc cctcccgatc agttggtgaa
841 cctgcacgac tttcgctcag acgaaattga gcacctgtt gtagaggagt tggtcaggaa
901 gagagaggag tgtctggatg cactagagtc catcatgaca accaagtcag tgagtttcag
961 acgtctcagt catttaagaa aacttgctcc tgggtttgga aaagcatata ccatattcaa
1021 caagaccttg atggaagccg atgctcacta caagtcagtc agaacttgga atgagatcct
1081 cccttcaaaa ggggtgttaa gagttggggg gaggtgtcat cctcatgtga acggggtgtt
1141 tttcaatggt ataatttag gacctgacgg caatgtctta atcccagaga tgcaatcatc
1201 cctctccag caacatatgg agttgttgga atcctcggtt atcccccttg tgcacccct
1261 ggcagaccgg tctaccgttt tcaaggacgg tgacgaggct gaggattttg ttgaagtcca
1321 ccttcccgat gtgcacaatc aggtctcagg agttgacttg ggtctcccga actgggggaa
1381 gtatgtatta ctgagtgcag gggccctgac tgccttgatg ttgataattt tcctgatgac
1441 atgtttaga agagtcaatc gatcagaacc tacgcaacac aatctcagag ggacagggag
1501 ggaggtgtca gtcactcccc aaagcgggaa gatcatatct tcatgggaat cacacaagag
1561 tgggggtgag accagactgt gaggactggc cgtcctttca acgatccaag tcctgaagat
1621 cacctcccct tggggggttc tttttaaaaa
```


Figure 24

SEQ ID NO:13

AMINO ACID SEQUENCE OF RABIES VIRUS STRAIN ERA

Genbank: locus RAVGPLS, accession M38452

PID:g333574"

MVPQALLFVPLLVFPLCFGKFPIYTILDKLGPWSPIDIHHLSCPNNLVVEDEGCTNLSG
FSYMELKVGYILAIKMNGFTCTGVVTEAETYTNFVG YVTTTTFKRKHFRPTPDACRAAYN
WK MAGDP RYEESLHN PYPDYRWLR TVKTTKESLVIISPSVADLDPYDRSLHSRVFPSGK
CSGVAVSSTYCSTNHDYTIWMPENPRLGMSCDIFTNSRGKRASKGSETCGFVDERGLYK
SLKGACKLKL CGVLGLRLMDGTWVAMQTSNETKWCPPDQLVNLHDFRSDEIEHLVVEEL
VRKREECLDALESIMTTKSVSFRRLSHLRKLVPGFGKAYTIFNKTLMEADAHYKSVRTW
NEILPSKGCLRVGGRCHPHVNGVFFNGIILGPDGNVLIPEMQSSLLQQHMELLESSVIP
LVHPLADPSTVFKDGDEAEDFVEVHLPDVHNQVSGVDLGLPNWGKYVLLSAGALTALML
IIFLMTCCRRVNRSEPTQHNLRGTGREVSVTPQSGKIISSWESHKSGGETRL

Figure 25

SEQ ID NO:14 ERAdm

ATGGTTCCTCAGGCTCTCCTGTTTGTACCCCTTCTGGTTTTTCCATTGTGTTTTGGGAA
ATTCCCTATTTACACGATCCCAGACAAGCTTGGTCCCTGGAGCCCGATTGACATACATC
ACCTCAGCTGCCCCAAACAATTTGGTAGTGGAGGACGAAGGATGCACCAACCTGTCAGGG
TTCTCCTACATGGAACCTTAAAGTTGGATACATCTTAGCCATAAAAAATGAACGGGTTTAC
TTGCACAGGCGTTGTGACGGAGGCTGAAACCTACACTAACTTCGTTGGTTATGTCACAA
CCACGTTCAAAGAAAGCATTTCCGCCCAACACCAGATGCATGTAGAGCCGCGTACAAC
TGGAAGATGGCCGGTGACCCCAGATATGAAGAGTCTCTACACAATCCGTACCCTGACTA
CCGCTGGCTTCGAACTGTAAAAACCAACCAAGGAGTCTCTCGTTATCATATCTCCAAGTG
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TGCTCAGGAGTAGCGGTGTCTTCTACCTACTGCTCCACTAACCACGATTACACCATTTG
GATGCCCCGAGAATCCGAGACTAGGGATGTCTTGTGACATTTTTTACCAATAGTAGAGGGA
AGAGAGCATCCAAAGGGAGTGAGACTTGCGGCTTTGTAGATGAAAGAGGCCTATATAAG
TCTTTAAAGGAGCATGCAAACTCAAGTTATGTGGAGTTCTAGGACTTAGACTTATGGA
TGGAACATGGGTGCGCATGCAAACTCAAAATGAAACCAAATGGTGCCCTCCCGATCAGT
TGGTGAACCTGCACGACTTTCGCTCAGACGAAATTGAGCACCTTGTTGTAGAGGAGTTG
GTCAGGAAGAGAGAGGAGTGTCTGGATGCACTAGAGTCCATCATGACAACCAAGTCAGT
GAGTTTCAGACGTCTCAGTCATTTAAGAAAACCTTGTCCTGGGTTTGGAAGAGCATATA
CCATATTCAACAAGACCTTGATGGAAGCCGATGCTCACTACAACCTCAGTCATGACTTGG
AATGAGATCCTCCCCTCAAAGGGTGTTTAAGAGTTGGGGGGAGGTGTCATCCTCATGT
GAACGGGGTGTTTTTCAATGGTATAATATTAGGACCTGACGGCAATGTCTTAATCCCAG
AGATGCAATCATCCCTCCTCCAGCAACATATGGAGTTGTTGGAATCCTCGGTTATCCCC
CTTGTGCACCCCCTGGCAGACCCGTCTACCGTTTTTCAAGGACGGTGACGAGGCTGAGGA
TTTTGTTGAAGTTCACCTTCCCGATGTGCACAATCAGGTCTCAGGAGTTGACTTGGGTC
TCCCGAACTGGGGGAAGTATGTATTACTGAGTGCAGGGGCCCTGACTGCCTTGATGTTG
ATAATTTTCCTGATGACATGTTGTAGAAGAGTCAATCGATCAGAACCTACGCAACACAA
TCTCAGAGGGACAGGGAGGGAGGTGTCAGTCACTCCCCAAAGCGGGAAGATCATATCTT
CATGGGAATCACACAAGAGTGGGGGTGAGACCAGACTGTGA

Figure 26

SEQ ID NO:15 CVS rabies virus glycoprotein

ATGGTTCCTCAGGTTCTTTTGTGTGACTCCTTCTGGGTTTTTCGTTGTGTTTCGGGAA
GTTCCCCATTTACACGATACCAGACAACTTGGTCCCTGGAGCCCTATTGACATACACC
ATCTCCGCTGTCCAAATAACCTGGTTGTGGAGGATGAAGGATGTATCAACCTGTCCGGG
TTCTCCTACATGGAAGTCAAAGTGGGATACATCTCAGCCATCAAAGTGAACGGGTTTAC
TTGCACAGGTGTTGTGACAGAGGCAGAGACCTACACCAACTTTGTTGGTTATGTCACAA
CCACATTCAAGAGAAAGCATTTCCGCCCCACCCAGACGCATGTAGAGCCGCGTATAAC
TGGAAGATGGCCGGTGACCCAGATATGAAGAGTCCCTACAAAATCCATACCCCGACTA
CCACTGGCTTCGAACTGTAAGAACCACCAAAGAGTCCCTCATTATCATATCCCCAAGTG
TGACAGATTTGGACCCATATGACAAATCCCTTCACTCAAGGGTCTTCCCTGGCGGAAAG
TGCTCAGGAATAACGGTGTCTCTACCTACTGCTCAACTAACCATGATTACACCATTTG
GATGCCCCGAGAATCCGAGACCAGGGACACCTTGTGACATTTTTTACCAATAGCAGAGGGA
AGAGAGCATCCAACGGGAACAAGACTTGC GGCTTTGTGGATGAAAGAGGCCTGTATAAG
TCTCTAAAAGGAGCATGCAGGCTCAAGTTATGTGGAGTTCTTGGACTTAGACTTATGGA
TGGAACATGGGTCGCGATGCAAACATCAGATGAGACCAAATGGTGCTCTCCAGATCAGT
TGGTGAATTTGCACGACTTTCGCTCAGACGAGATTGAGCATCTCGTTGTGGAGGAGTTA
GTCAAGAAAAGAGAGGAATGTCTGGATACATTAGAGTCCATCATGACCACCAAGTCAGT
AAGTTTCAGACGTCTCAGTCACCTGAGAAAACCTGTCCCAGGGTTTGGAAGAGCATATA
CCATATTCAACAAAACCTTGATGGAGGCTGATGCTCACTACAAGTCAGTCCGGACCTGG
AATGAGATCATCCCCTCAAAGGGTGTTTGAAAGTTGGAGGAAGGTGCCATCCTCATGT
GAACGGGGTGTTTTTCAATGGTATAATATTAGGGCCTGACGACCGTGTCTAATCCCAG
AGATGCAATCATCCCTCCTCCGGCAACATATGGAGTTGTTGGAATCTTCAGTTATCCCC
CTGATGCACCCCTGGCTGACCCTTCTACAGTTTTCAAAGAAGGTGATGAGGCTGAGGA
TTTTGTTGAAGTTCACCTCCCCGATGTGTACAAACAGATCTCAGGGGTTGACCTGGGTC
TCCCGAAGTGGGGAAAGTATGTATTGATGACTGCAGGGGCCATGATTGGCCTGGTGTTG
ATATTTTCCCTAATGACATGGTGCAGAAGAGCCAATCGACCAGAATCGAAACAACGCAG
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Figure 27

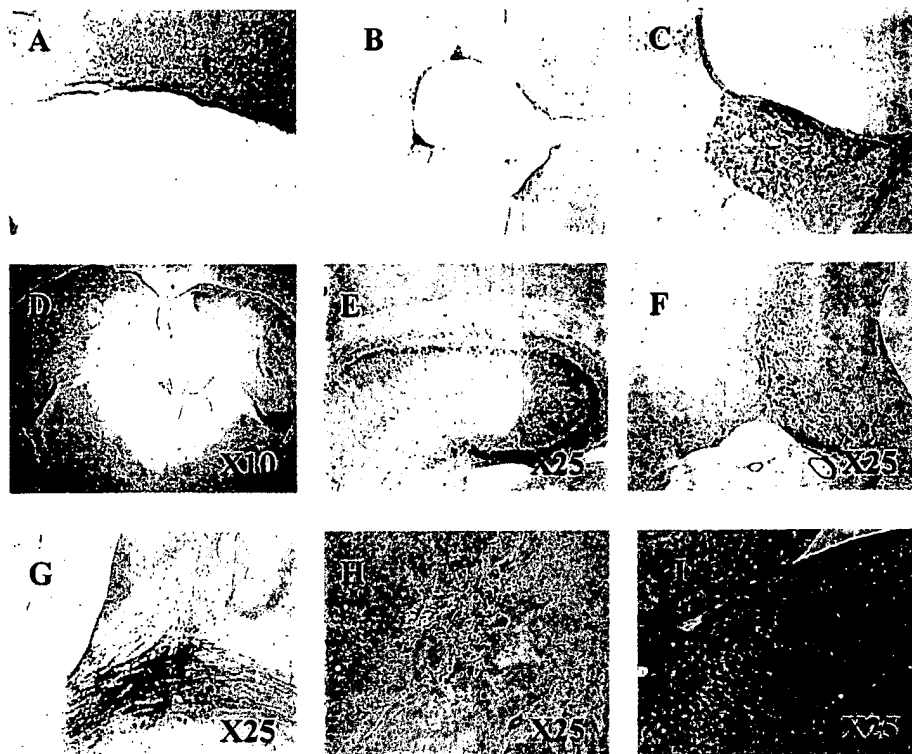


Figure 28

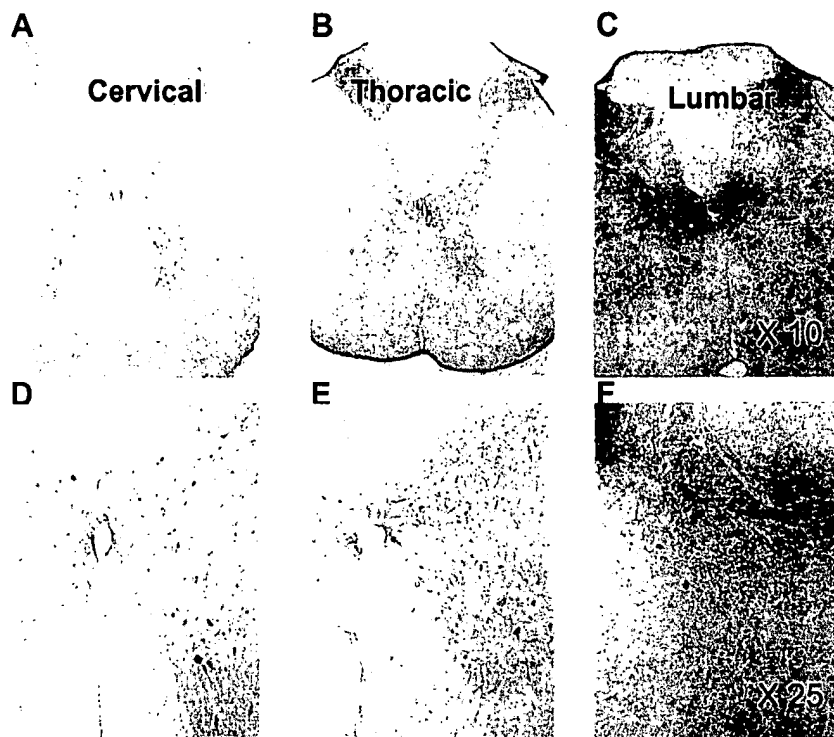
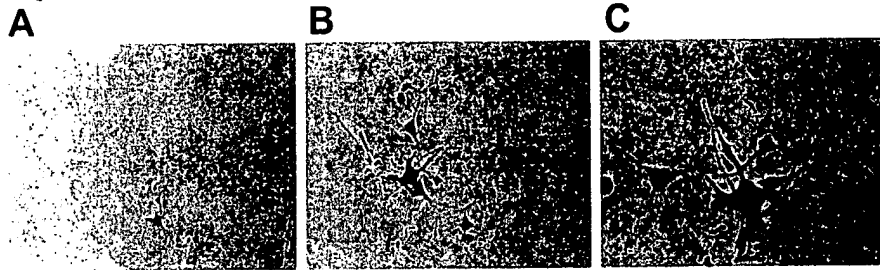
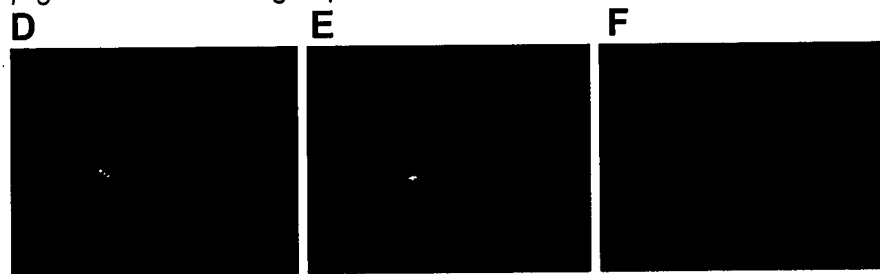


Figure 29

x-gal staining : spinal cord



β -gal immunostaining : spinal cord



x-gal staining : gastrocnemius muscle



Figure 30



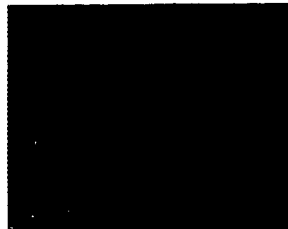
Figure 31

Spinal cord

A



B



C



Cortex

D



Brain stem

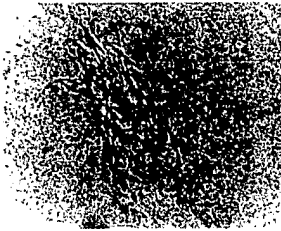
E



Figure 32

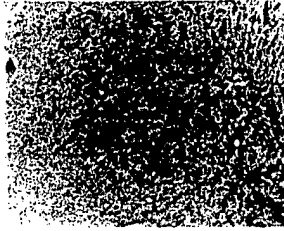
Globus pallidus

A



Cortex

B



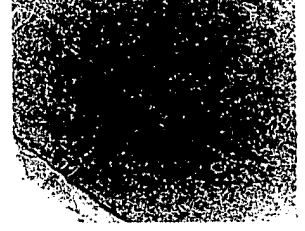
Reticular thalamus

C



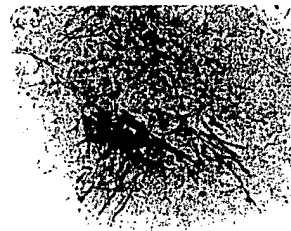
Substantia nigra

D



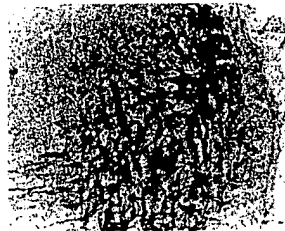
Genic nuclei

E



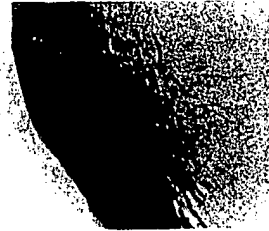
Parabrachial nuclei

F



Ventral cochlear nuclei

G



Facial nuclei

H

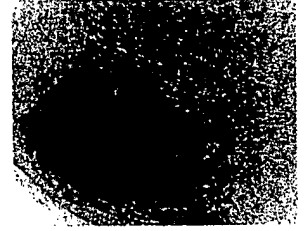


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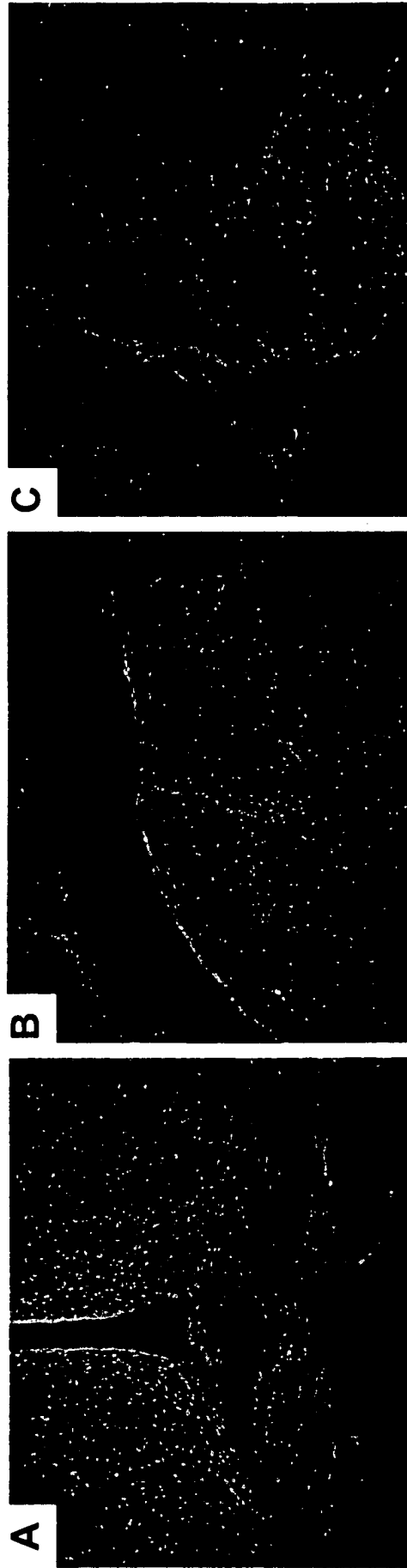


FIGURE 34

REPLACEMENT VECTOR



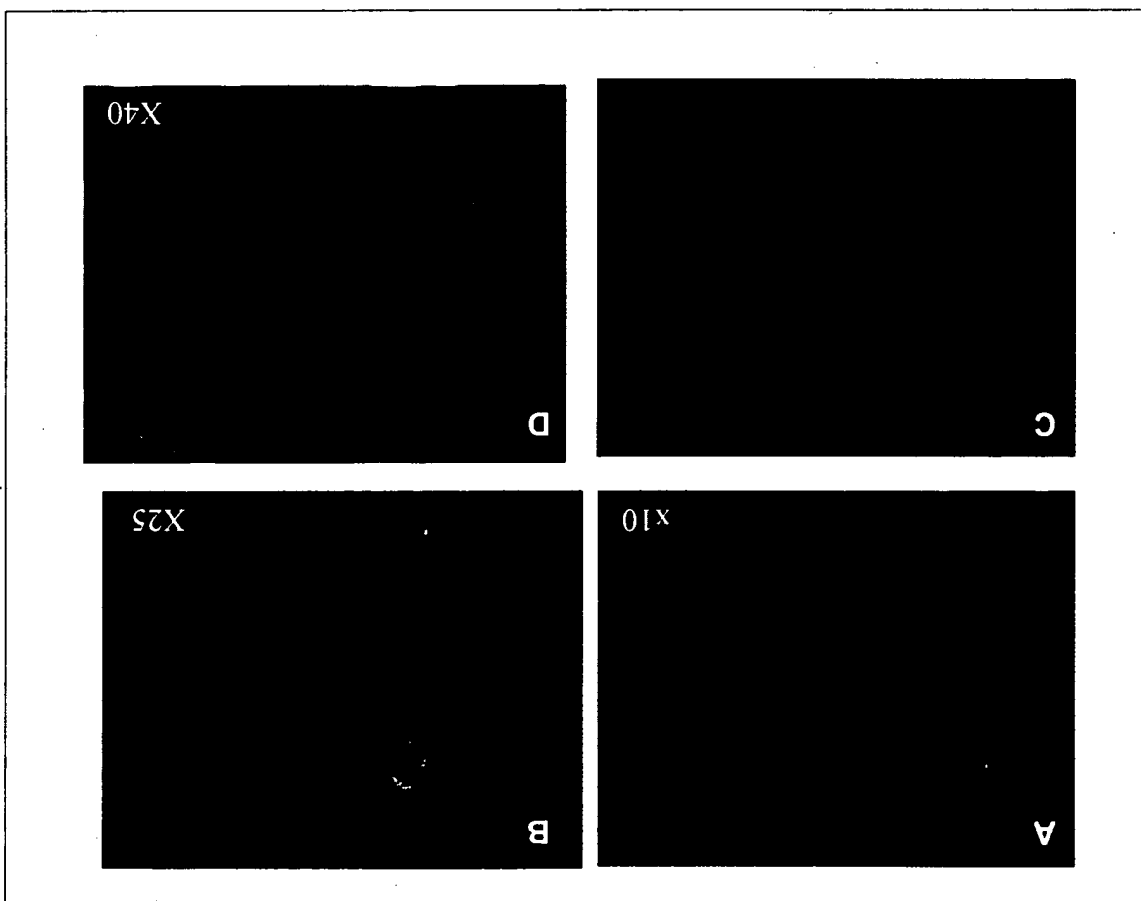


FIGURE 35

FIGURE 36

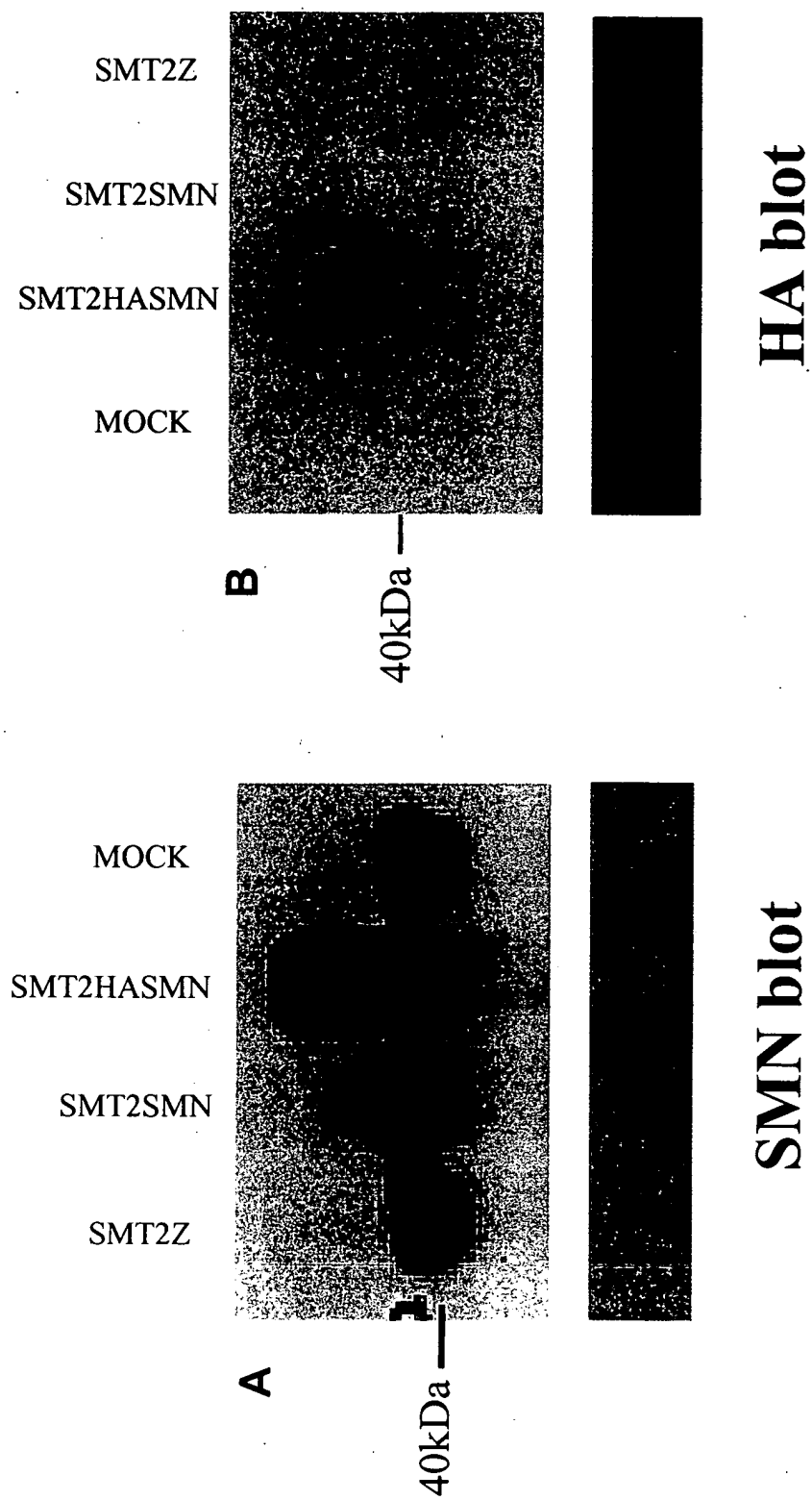


FIGURE 37

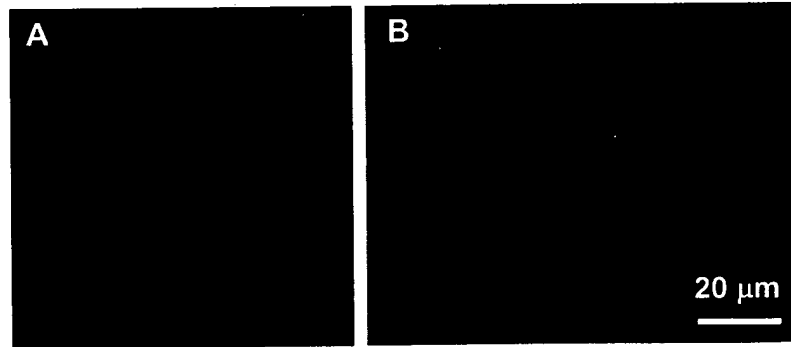


FIGURE 38

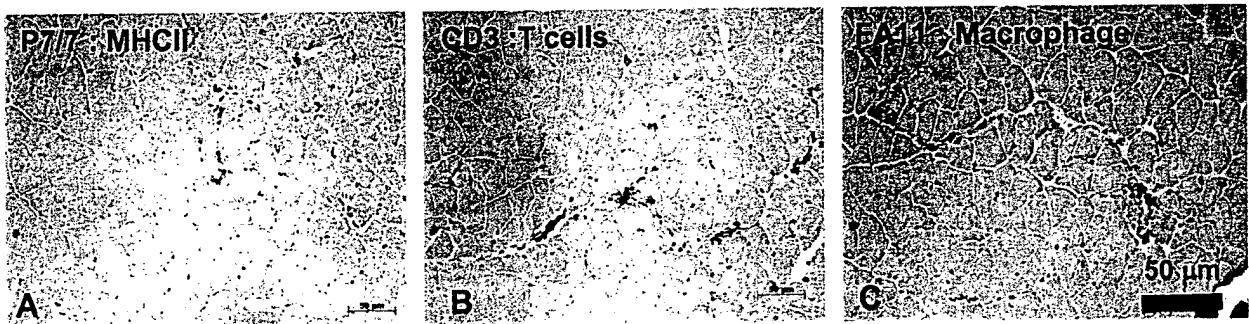


FIGURE 39

